DOCUMENT RESUME

ED 075 011 JC 730 081

AUTHOR Wojciechowski, William A.; Hayes, Robert E.
TITLE CCAF: A Lesson in Space Age Curriculum Development.
INSTITUTION Community Coll. of the Air Force, Randolph AFB, Tex.
NOTE 12p.

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS Career Planning; *Community Colleges; *Curriculum Development; Educational Certificates; *Enlisted Men; Military Air Facilities; Military Personnel; Post Secondary Education; Program Descriptions; *Supervisory Training; *Technical Education; Transfer Programs
IDENTIFIERS *United States Air Force

ABSTRACT

The Community College of the Air Force (CCAF) integrated Air Force technical education with civilian related education, resulting in 77 Career Education Certificate programs. CCAF plots the career education of Air Force enlisted personnel, using service instruction as a core and guidelines established by the U.S. Office of Education and other agencies for two-year occupationally oriented, associate level programs. Certificate programs require a 64-semester-hour minimum, which includes at least 24 semester hours of technical education related to an individual's Air Force occupation, 25 semester hours of related education designed for personal enrichment and to enhance supervisory skills, and 6 semester hours of military management instruction. The related education is obtained primarily from accredited institutions during off-duty time. After the initial development of the 77 career patterns, the curricula were reviewed against specified criteria, modifications were made, and advisory panels were identified for each of the career patterns. Subsequent to an annual review by the advisory panels, career patterns are modified by Career Division analysts as necessary, approved by the Policy Council, and are incorporated into the CCAF catalog for distribution. The catalog provides all pertinent information regarding the CCAF program, including the awarding of the Career Education Certificate. Follow-up studies are conducted to determine the effectiveness of the program in preparing the personnel for the roles of technician and supervisor, as well as to provide for continuous CCAF program development. A flow chart is provided of the educational programs. (DB)

FILMED FROM BEST AVAILABLE COPY

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

ED 075011

CCAF - A Lesson in Space Age Curriculum Development

by

William A. Wojciechowski

and

Robert E. Hayes

JC 730 081

Captain Wojciechowski and Lt Colonel Hayes are on the staff of the Community College of the Air Force located at Randolph Air Force Base, in San Antonio, Texas. Captain Wojciechowski (Ed.D., Lehigh University) develops the long-range educational plans of the College while Lt Colonel Hayes (M.Ed., St Mary's University) is head of the College's Careers Division.

UNIVERSITY OF CALIF.
LOS ANGELES

MAY 5 1973

CLEARINGHOUSE FOR
JUNIOR COLLEGE
INFORMATION

CCAF - A LESSON IN SPACE AGE CURRICULUM DEVELOPMENT

The Community College of the Air Force (CCAF) is a unique institution capsulizing innovation, nontraditionalism, career education and all the other adjectives of higher education in the seventies. It is the U. S. Air Force's contribution to a "university without walls" concept of career education. The CCAF concept is unique in that it integrates Air Force technical education with civilian related education resulting in educational programs which are totally responsive to the community it serves. Furthermore, the 77 Career Education Certificate programs are career relevant; employability is designed into the program. Education program development within the Community College of the Air Force is consistent with its philosophy and in line with trends in both Air Force and civilian occupational education. Simply stated, CCAF intends to focus the educational effort of Air Force enlisted personnel toward obtaining a high quality, occupationally oriented education enabling them to serve as masters of their trades and supervisors whether in the Air Force or in civilian life.

The U. S. Office of Education has estimated that 80% of the work force will require occupational skills in the 1980's as contrasted to baccalaureate skills. Concurrent with this changing emphasis on needed educational skills, we have seen the Air Force enlisted force decline from more than 800,000 personnel to approximately 590,000 in less than 5 years with little change in mission requirements. Also,

with this reduction came more complex weapons systems. Moreover, there is a growing need for more sophisticated supervisory skills. Vietnam-era incidents of racial unrest, drugs, and other such notable social problems indicate that knowledge of technology alone is inadequate -- skill in human relations acquired through an understanding of the social sciences and humanities seems dictated. Therefore, the Community College of the Air Force systematically plots the career education of Air Force enlisted personnel to meet the demands of changing technologies and to develop the social awareness necessary for the effective management of people. The next page, entitled CCAF Educational Programs, features a model for the continuous development of CCAF career programs.

OCCUPATIONAL REQUIREMENTS: Requirements for specific Air Force jobs are determined by Air Force planners from a review of programming documents, such as the Personnel Manpower Change Program series, which indicate numbers of personnel required and specific occupational specialties. The documents also reflect how many enlisted personnel, and with what training, leave the Air Force annually. The quality of people needed is indicated in the Airmen Classification Manual, and through means such as job inventory programs conducted by the Air Force's Air Training Command, the Air Force Human Resources Laboratory, and feedback from using agencies.

Since it has been estimated by the Aerospace Education Foundation and the Air Force Human Resources Laboratory that approximately 85% of Air Force occupations have civilian counterparts, CCAF reviews civilian occupational requirements as part of the program development process. The Department of Labor's Occupational Outlook Handbook and comparable state guides are reviewed to determine projected national requirements for specific occupations. Long range projections are provided by the Department of Labor's Industry-Occupational Matrices and the President's manpower report.

An assessment of the quality of education required is then made through a review of guidelines such as those found in the USOE Technical Education Program series and Occupational Criteria and Preparatory Curriculum Plans in Technical Education Programs. Curriculum guides such as those for aviation and electro-mechanical careers published by the American Association of Community and Junior Colleges are also beneficial. The ASEE* Engineering Technology Education study has been useful as a means of defining parameters of education for technicians. Guidelines prepared by other agencies such as the International Association of Firefighters and the Texas Commission of Law Enforcement have been studied and incorporated wherever possible to provide the necessary prerequisites for future licensing and certification of CCAF graduates.

RESOURCES: In the past, Air Force educational programs for enlisted personnel placed little emphasis on tying together service-provided instruction and related technical/general education available through a

* American Society of Engineering Education

variety of sources. The Air Force provides technical training via some 3,000 technical training courses to approximately 300,000 students per year. Of these, approximately 80,000 students are new to the Air Force and are attending resident technical courses for the first time. Later in their careers, many of these people will receive management instruction through a series of Non-Commissioned Officer Academies and other specialized instruction from schools such as the School of Aerospace Medicine. Also, an extensive system for providing work experience is combined with on-job instruction through a dual-channel OJT program - work and study. Completion of this period of apprenticeship is documented attesting to an individual's ability level to perform skills necessary in a particular specialty.

In the past, most of the aforementioned instruction was specifically designed to prepare enlisted personnel either as technicians or as managers. No effort had been made to tie this instruction to programs in related general education available from the 350 civilian institutions associated with some 172 Air Force Education Service Centers. Similarly, most of the programs offered through the Armed Forces Institute (USAFI) are not specifically career oriented.

CCAF CONTROL: If these myriad forms of instruction are to be focused toward career relevant education for enlisted people, program control must be exercised by a central agency. CCAF serves this function for the Air Force in much the same manner as the curriculum committee of a faculty for a university or a college. The Careers Division of CCAF is charged with the responsibility for analyzing service instruction to determine which parts of Air Force instruction:

- Are at a civilian post-secondary level. (This evaluation is made by CCAF analysts who have an average of 11 years experience in their occupational specialties with a range from 4-20 years. The majority have at least a bachelor's degree and more than 50% have graduate degrees.)
- Have civilian applicability and/or are occupationally related instead of being exclusively Air Force oriented.

Subject matter which meets these two basic criteria are evaluated on the basis of approximately 30 contact hours of instruction being equivalent to one semester hour. CCAF credits are applicable toward a Community College of the Air Force Career Education Certificate (CEC).

Using service instruction as a core and guidelines established by USOE and other standard setting agencies for two year occupationally oriented, associate level programs, a basic career pattern for the Career Education Certificate was established. Certificate programs require a 64 semester hour minimum which include at least 24 semester hours of technical education related to an individual's Air Force occupation, 25 semester hours of related education designed for personal enrichment and to enhance supervisory skills, and 6 semester hours of military management instruction. The related education in the career pattern is primarily obtained from accredited institutions by the individual during his off-duty time, either with the Air Force providing 75 percent tuition assistance or with Veterans Administration allowances. Currently, only a combination of 12 semester hours of College Level Examination Program (CLEP) credit and Armed Forces Institute (USAFI) credit may be used toward this requirement.

As is clear from the foregoing, CCAF is interested in focusing students' efforts on education related to their occupational specialties within the Air Force in order to increase their usefulness to the Air Force and to enhance their possibilities for post service employment. Therefore, after outlining 64 hour minimum career patterns, the Careers Division reviewed all Air Force occupational specialties and clustered them into some 77 individual career patterns in eight major career areas, e.g., in administration and management there are majors in general business, business management, and computer science. In the electro-mechanical careers area, some 17 career patterns or majors were developed. Each of these was constructed using the best available curriculum guidance. For example, U.S. Office of Education guidance for technical education indicated that programs should provide students with a facility in mathematics, physical science principles related to technical skills, and ability in communication skills along with the knowledge of a particular occupational specialty. To this core has been added a facility in social sciences, humanities, and management to insure that individuals attaining supervisory positions develop the social awareness necessary in coping with increasingly complex demands on personnel in management positions.

After the 77 career patterns were initially developed, they

were reviewed by the CCAF Policy Council (Semi-annual review) consisting of selected members of the CCAF staff and experts in the major areas being reviewed. The curricula were reviewed against criteria such as the following:

. Does the career pattern provide for Air Force occupational needs?

. Does the career pattern have a civilian occupational orientation?

. Does the career pattern meet the CCAF curriculum pattern minimum of 64 semester hours?

. Does the career pattern satisfy basic instructional program criteria such as those expressed in the Southern Association's Commission on Occupational Education Institutions guidelines?

After modifications suggested by the Policy Council to the curricula were made, advisory panels were brought into action.

ADVISORY PANELS: In order to insure that curricula developed and controlled by CCAF are consistent with Air Force needs and, where possible, civilian requirements, advisory panels for each of the 77 career patterns were identified. These panels consist of representatives from the technical schools which offer instruction reflected in the career patterns and representatives from the Air Force's technical training directorate (or Surgeon General for allied health programs) who act as program monitors. Wherever possible, representatives

from appropriate professional organizations will be asked to review CCAF curricula and comment on them in terms of adequacy in preparing individuals to fulfill professional duties at the technician level. Where licensing or certifying agencies exist for an occupational specialty, members of those agencies will also be asked to review appropriate career patterns to determine their adequacy in preparing students for certification and licensing. Finally, in those areas where employment entry is dominated by unions or specific industries, members of the union or industry will also be asked to comment. For example, CCAF is interested in determining how its programs could be used by individuals in satisfying requirements for an apprenticeship-type program.

CURRICULA DISTRIBUTION/GUIDANCE: Subsequent to annual review by advisory panels, career patterns are modified by Careers Division analysts as necessary and formally approved by the Policy Council. Thereafter, the career patterns are incorporated into the CCAF catalog which is to be distributed to Air Force schools and bases, recruiters, high schools, Education Services Officers, college registrars, and requesting employers. The catalog clearly indicates who can enter a CCAF program (only an active duty airman can pursue a Career Education Certificate). It also provides specific guidance to Education Services Officers concerning CCAF curricula and what courses airmen should be advised to take to progress through a career pattern. The catalog clearly specifies how an individual may request a transcript of his technical education completed while in the Air Force and how he may have an official transcript forwarded to employers.

or colleges. Finally, the catalog details the procedure by which an individual can accumulate the necessary semester hours for a CEC and submit documentation to CCAF in support of his request for a Career Education Certificate.

CAREER EDUCATION CERTIFICATE APPROVAL: Once documentation is received at CCAF, it is reviewed by the Careers Division to insure that courses completed are from accredited institutions and are consistent with career pattern objectives and that the individual has a coherent body of knowledge reflecting a comprehensive grasp of his occupational specialty. Those who fulfill CEC requirements are recommended to the Policy Council for approval and award of the Career Education Certificate.

FOLLOW-UP: To insure that the certificate programs continue to meet the needs of both the Air Force and civilian employers, follow-up studies are to be conducted either by the Air Force Human Resources Laboratory or the CCAF Programs Division. The studies will determine:

(1) Contributions of CCAF programs to the improvement of non-commissioned officer quality in terms of vocational skills and supervisory competence.

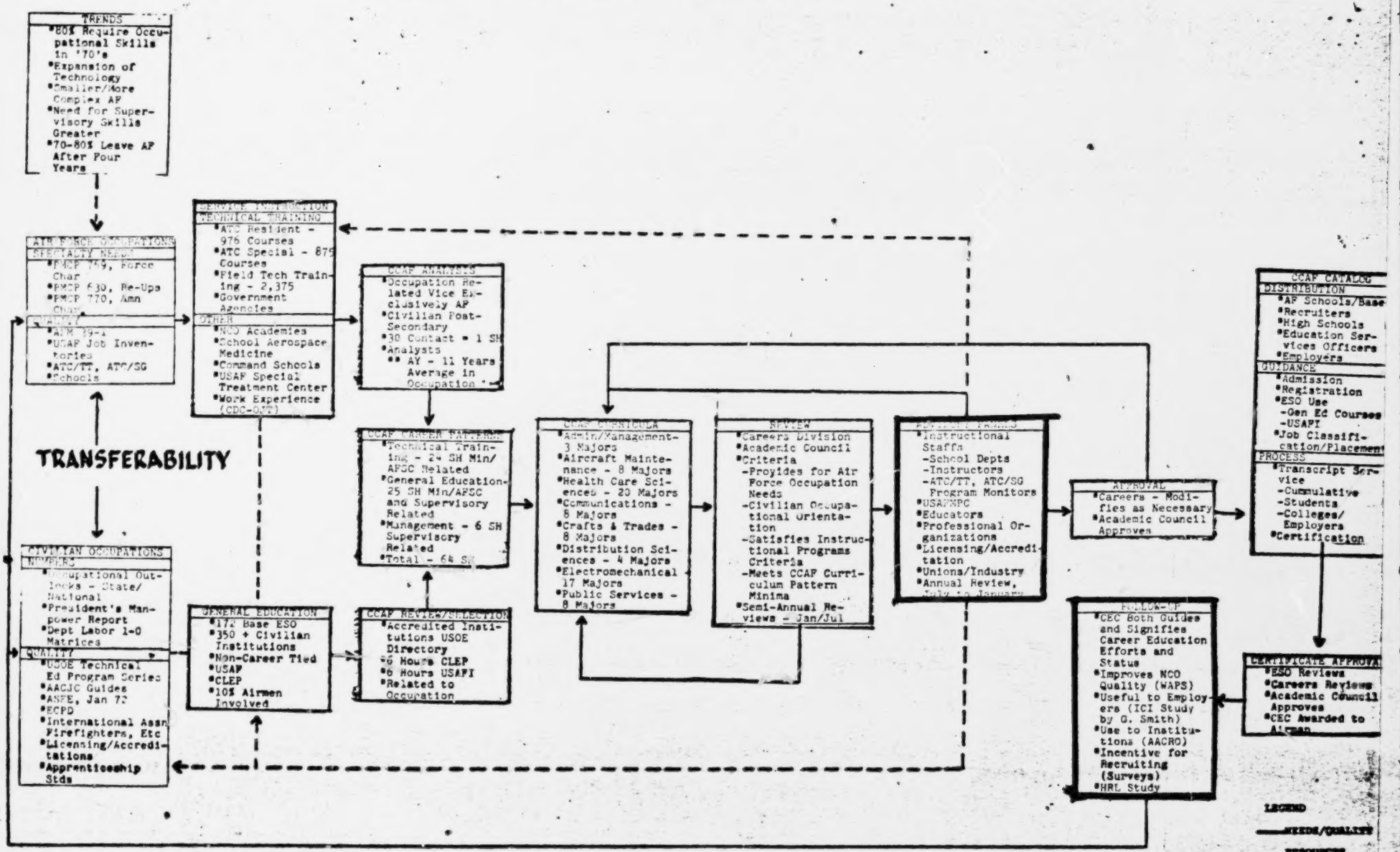
(2) The usefulness of these programs to employers and to other agencies such as for transfer credit to colleges and universities.

(3) The usefulness of CCAF programs as a recruiting incentive.

Feedback from these studies, as well as informal feedback from registrars, surveys, and other sources, will enable CCAF to modify and improve the programs as necessary.

SUMMARY: The systematic model which illustrates CCAF program development is educationally sound and contains the ingredients required by standard setting agencies. Occupational requirements are illustrative of needs. Resources are rallied to meet these needs and CCAF career patterns result. These are controlled for quality and need satisfaction by subsequent review from the CCAF Policy Council and advisory panels. Necessary modifications result and, then, final approval. The resulting career patterns are published in the CCAF catalog. Interaction between CCAF, the individual and his Education Services Officer occurs. This results in continuous vocational guidance with the objective being receipt of the Career Education Certificate. Subsequent follow-up of CCAF graduates is made to determine how well CCAF programs have helped to prepare the individual for his role as a technician and supervisor. The follow-up serves as a feedback loop making the CCAF program development process a continuous one.

CCAF EDUCATIONAL PROGRAMS



Draft: CCAF Educational Program Process, 17 Nov 72